Predicting Exposure to Hazards Using the CPWR Exposure Control Database

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CPWR – The Center for Construction Research and Training

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Babak Memarian, Ph.D.

- Director of Exposure Control Technologies Research, CPWR
- Co-chair of NIOSH/CPWR Engineering Control Workgroup
- Ph.D. in Construction Management
- M.S. and B.S. in Civil and Construction Engineering & Project Management
- Research Area:
  - High Reliability Production Systems
  - Lean Construction
  - Safety
  - Prevention-

Agenda

1. Construction Solutions Project
2. The Exposure Control Database
3. Website Walkthrough
4. Challenges
5. Data Collection Forms

Construction Solutions Project

Construction Solutions Project

The Exposure Control Database

Objectives:

- Create a searchable collection of objective exposure measurements
- Help small- and medium-size contractors predict workers' exposure to four key hazards:
  - Silica
  - Welding Fumes
  - Noise
  - Lead
- Highlight the effectiveness of engineering controls

Sources of Data:

- Peer-reviewed literature
- Government reports
- External partners

Website Walkthrough

www.ecd.cpwrconstructionsolutions.org

Challenges and Solutions

Challenges:

- Data availability
- Data quality

Solutions:

- Two sampling forms developed by CPWR to streamline the data collection process and improve data quality:
  - Respirable Crystalline Silica
  - Noise
- Forms contain:
  - Sampling recommendations
  - Contact information
  - Fields for required variables and measurements

Noise

https://safeconstructionnetwork.org/collaborations/cpwr-call-for-data-silica-and-noise/

Thank You!

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